

CLAIM AMENDMENTS

Claim Amendment Summary

Claims pending

- At time of the Action: Claims 1-63.
- After this Response: Claims 1-17, 19-35, 37-47, and 49-79.

Canceled or Withdrawn claims: 18, 36, and 48.

Amended claims: 1, 2, 4, 6, 8, 15-17, 19, 20, 22, 25, 33-35, 37-39, 42, 45, 49-55, 58, and 61.

New claims: 64-79.

Claims:

1. **(CURRENTLY AMENDED)** A method of formatting a message for exchange between entities on a network, the method comprising:

generating a message envelope;

generating contents of the message envelope, the contents comprising data structures, ~~in which each data structure is identified according to~~ identifies which entity ~~that~~ is intended to process the data structure when that entity receives the message envelope over the network.

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1 2. (CURRENTLY AMENDED) A method as recited in claim 1, wherein
2 each data structure ~~is further identified according to~~ specifies whether the entity
3 that is intended to process the data structure must understand such data structure.
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5 3. (ORIGINAL) A method as recited in claim 1, wherein:
6 the message envelope has beginning and ending envelope tags;
7 the contents of the message envelope is between the envelope tags.
8

9 4. (CURRENTLY AMENDED) A method as recited in claim 1, wherein
10 the contents include:
11 a header data structure;
12 a body data structure, the body data structure including message data.
13

14 5. (ORIGINAL) A method as recited in claim 4, wherein:
15 the header data structure has beginning and ending header tags;
16 the body data structure has beginning and ending body tags.
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18 6. (CURRENTLY AMENDED) A method as recited in claim 4, wherein:
19 the header data structure is intended for at least one intermediate entity;
20 the body data structure is intended for an destination entity.
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1 7. (ORIGINAL) A method as recited in claim 1 further comprising
2 sending the message envelope to an entity on a network.

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4 8. (CURRENTLY AMENDED) A method as recited in claim 1, wherein
5 at least one of the data structures includes a request for an entity to perform a task,
6 wherein the data structures lack executable instructions for performing the task.

7
8 9. (ORIGINAL) A method as recited in claim 1, wherein the data
9 structures are expressed in a markup language.

10
11 10. (ORIGINAL) A method as recited in claim 1, wherein the data
12 structures are expressed in XML.

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14 11. (ORIGINAL) A method as recited in claim 1 further comprising:
15 formatting the message envelope for sending over a network using HTTP;
16 sending the message envelope to an entity on the network by using HTTP.

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18 12. (ORIGINAL) A method as recited in claim 1 further comprising:
19 binding the message envelope into a HTTP request;
20 sending the message envelope to an entity on the network by using HTTP.

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22 13. (ORIGINAL) A method as recited in claim 1 further comprising:
23 binding the message envelope into a HTTP response;
24 sending the message envelope to an entity on the network by using HTTP.
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1 14. (ORIGINAL) A method as recited in claim 3, wherein the envelope
2 tags identify the message envelope.

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4 15. (CURRENTLY AMENDED) A method as recited in claim 4 5,
5 wherein the header tags identify the header data structure.

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7 16. (CURRENTLY AMENDED) A method as recited in claim 4 5,
8 wherein the body tags identify the body data structure.

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17. (CURRENTLY AMENDED) A method as recited in claim 4, wherein the message envelope has the following format:

<Envelope label>
 <Header label>
 header data
 </Header label>
 <Body label>
 message data
 </Body label>
</Envelope label>

the <Envelope label> being ~~the~~ a beginning envelope tag, the </Envelope label> being ~~the~~ an ending envelope tag, and the Envelope label identifying the message envelope;

the <Header label> being ~~the~~ a beginning header tag, the </Header label> being ~~the~~ an ending header tag, the Header label identifying the header data structure;

the <Body label> being ~~the~~ a beginning body tag, the </Body label> being ~~the~~ an ending body tag, and the Body label identifying the body data structure;

the header data being expressed in XML;

the message data being expressed in XML.

✓18. (CANCELLED).

1 19. (CURRENTLY AMENDED) A method of delivering a message over a
2 network, the method comprising:

3 transmitting a message envelope of a message from an origin entity to a
4 destination entity via one or more intermediate entities on the network;

5 the message envelope having contents comprising data structures, ~~in which~~
6 each data structure ~~is identified according to~~ identifies which entity ~~that~~ is
7 intended to process the data structure when that entity receives the message
8 envelope over the network.

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10 20. (CURRENTLY AMENDED) A method as recited in claim 19, wherein
11 each data structure ~~is further identified according to~~ specifies whether the entity
12 that is intended to process the data structure must understand such data structure
13 when that entity receives the message envelope over the network.

14
15 21. (ORIGINAL) A method as recited in claim 19, wherein:
16 the message envelope has beginning and ending envelope tags;
17 the contents of the message envelope is between the envelope tags.

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19 22. (CURRENTLY AMENDED) A method as recited in claim ~~17~~ 19,
20 wherein the contents include:

21 a header data structure;

22 a body data structure, the body data structure including message data.
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1 23. (ORIGINAL) A method as recited in claim 22, wherein:
2 the header data structure has beginning and ending header tags;
3 the body data structure has beginning and ending body tags.
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5 24. (ORIGINAL) A method as recited in claim 22, wherein:
6 the header data structure is intended for at least one intermediate entity;
7 the body data structure is intended for a destination entity.
8

9 25. (CURRENTLY AMENDED) A method as recited in claim 19, wherein
10 at least one of the data structures includes a request for an entity to perform a task,
11 wherein the data structures lack executable instructions for performing the task.
12

13 26. (ORIGINAL) A method as recited in claim 19, wherein at least one
14 of the data structures includes a request for an intermediate entity to perform a
15 task.
16

17 27. (ORIGINAL) A method as recited in claim 19, wherein the data
18 structures are expressed in a markup language.
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20 28. (ORIGINAL) A method as recited in claim 19, wherein the data
21 structures are expressed in XML.
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1 29. (ORIGINAL) A method as recited in claim 19 further comprising:
2 formatting the message envelope for sending over a network using HTTP;
3 sending the message envelope to an entity on the network by using HTTP.

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5 30. (ORIGINAL) A method as recited in claim 19 further comprising:
6 binding the message envelope into a HTTP request;
7 sending the message envelope to an entity on the network by using HTTP.

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9 31. (ORIGINAL) A method as recited in claim 19 further comprising:
10 binding the message envelope into a HTTP response;
11 sending the message envelope to an entity on the network by using HTTP.

12
13 32. (ORIGINAL) A method as recited in claim 21, wherein the envelope
14 tags identify the message envelope.

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16 33. (CURRENTLY AMENDED) A method as recited in claim ~~24~~ 23,
17 wherein the header tags identify the header data structure.

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19 34. (CURRENTLY AMENDED) A method as recited in claim ~~24~~ 23,
20 wherein the body tags identify the body data structure.

1 35. (CURRENTLY AMENDED) A method as recited in claim ~~24~~ 22,
2 wherein the message envelope has the following format:

3 <Envelope label>
4 <Header label>
5 header data
6 </Header label>
7 <Body label>
8 message data
9 </Body label>
10 </Envelope label>

11 the <Envelope label> being ~~the~~ a beginning envelope tag, the </Envelope
12 label> being ~~the~~ an ending envelope tag, and the Envelope label identifying the
13 message envelope;

14 the <Header label> being ~~the~~ a beginning header tag, the </Header label>
15 being ~~the~~ an ending header tag, the Header label identifying the header data
16 structure;

17 the <Body label> being ~~the~~ a beginning body tag, the </Body label> being
18 ~~the~~ an ending body tag, and the Body label identifying the body data structure;

19 the header data being expressed in XML;

20 the message data being expressed in XML.

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22 ✓ 36. (CANCELLED).
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1 37. (CURRENTLY AMENDED) A method of parsing a message received
2 by a receiving entity over a network from a sending entity, the method
3 comprising:

4 parsing a message envelope;

5 parsing contents of the message envelope, the contents comprising data
6 structures, ~~in which each data structure is identified according to~~ identifies which
7 entity ~~that~~ is intended to process the data structure when that entity receives the
8 message envelope over the network.

9
10 38. (CURRENTLY AMENDED) A method as recited in claim 37, wherein
11 each data structure ~~is further identified according to~~ specifies whether the entity
12 that is intended to process the data structure must understand such data structure
13 when that entity receives the message envelope over the network.

14
15 39. (CURRENTLY AMENDED) A method as recited in claim 38 further
16 comprising if the entity that is intended to process the data structure does not
17 understand such data structure, sending a response message to the sending entity
18 that indicates that the entity did not understand such data structure.

19
20 40. (ORIGINAL) A method as recited in claim 37 further comprising
21 sending a response message to the sending entity on the network.
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1 41. (ORIGINAL) A method as recited in claim 37, wherein:
2 the message envelope has beginning and ending envelope tags;
3 the contents of the message envelope is between the envelope tags.
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5 42. (CURRENTLY AMENDED) A method as recited in claim 37, wherein
6 the contents include:

7 a header data structure;
8 a body data structure, the body data structure including message data.
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10 43. (ORIGINAL) A method as recited in claim 42, wherein:
11 the header data structure has beginning and ending header tags;
12 the body data structure has beginning and ending body tags.
13

14 44. (ORIGINAL) A method as recited in claim 42, wherein:
15 the header data structure is intended for at least one intermediate entity;
16 the body data structure is intended for a destination entity.
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18 45. (CURRENTLY AMENDED) A method as recited in claim 37, wherein
19 at least one of the data structures includes a request for an entity to perform a task,
20 wherein the data structures lack executable instructions for performing the task.
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1 46. (ORIGINAL) A method as recited in claim 37, wherein the data
2 structures are expressed in a markup language.

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4 47. (ORIGINAL) A method as recited in claim 37, wherein the data
5 structures are expressed in XML.

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7 ✓48. (CANCELLED).
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49. (CURRENTLY AMENDED) A computer-readable storage medium having computer-executable instructions that, when executed by a computer, performs a method of formatting a message for exchange between entities on a network, the method comprising:

generating a message envelope;

generating contents of the message envelope, the contents comprising data structures, ~~in which each data structure is identified according to~~ identifies which entity ~~that~~ is intended to process the data structure when that entity receives the message envelope over the network.

50. (CURRENTLY AMENDED) A computer-readable storage medium having computer-executable instructions that, when executed by a computer, performs a method of delivering a message between entities on a network, the method comprising:

transmitting a message envelope of a message from an origin entity to a destination entity via one or more intermediate entities on the network;

the message envelope having contents comprising data structures, ~~in which each data structure is identified according to~~ identifies which entity ~~that~~ is intended to process the data structure when that entity receives the message envelope over the network.

1 51. (CURRENTLY AMENDED) A computer-readable storage medium
2 having computer-executable instructions that, when executed by a computer,
3 performs a method of parsing a message received by a receiving entity over a
4 network from an sending entity, the method comprising:

5 parsing a message envelope of a message;

6 parsing contents of the message envelope, the contents comprising data
7 structures, ~~in which each data structure is identified according to~~ identifies which
8 entity ~~that~~ is intended to process the data structure when that entity receives the
9 message envelope over the network.
10

11
12 52. (CURRENTLY AMENDED) A message exchange apparatus
13 comprising:

14 a processor;

15 a message formatter executable on the processor to:

16 generate a message envelope of a message;

17 generate contents of the message envelope, the contents comprising
18 data structures, ~~in which each data structure is identified according to~~
19 identifies which entity ~~that~~ is intended to process the data structure when
20 that entity receives the message envelope over the network.
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1 53. (CURRENTLY AMENDED) A message exchange apparatus
2 comprising:

3 a processor;

4 a message deliverer executable on the processor to:

5 transmit a message envelope of a message from an origin entity to a
6 destination entity via one or more intermediate entities on the network;

7 the message envelope having contents comprising data structures,
8 each data structure identifies which entity is intended to process the data
9 structure when that entity receives the message envelope over the network.

11 54. (CURRENTLY AMENDED) ~~the message envelope having contents~~
12 ~~comprising data structures, in which each data structure is identified according to~~
13 ~~which entity, over a network of entities, that is intended to process the structure~~
14 ~~and whether that entity must understand such structure.~~ A message exchange
15 apparatus comprising:

16 a processor;

17 a message parser executable on the processor to:

18 parse a message envelope of a message;

19 parse contents of the message envelope, the contents comprising
20 data structures, ~~in which each data structure is identified according to~~
21 identifies which entity that is intended to process the data structure when
22 that entity receives the message envelope over the network.

1 **55. (CURRENTLY AMENDED)** A message envelope generated in
2 accordance with the following acts:

3 providing a sending entity in communication with a network of entities;

4 ~~receiving data intended for an intermediate entity;~~

5 ~~receiving data intended for a destination entity;~~

6 generating contents of the message envelope of a message, the contents
7 comprising:

8 a header data structure which identifies ~~the~~ an intermediate entity as
9 that which is intended to process the header data structure and whether that
10 intermediate entity must understand such data structure; and

11 a body data structure which identifies ~~the~~ a destination entity as that
12 which is intended to process the body data structure.

13
14 **56. (ORIGINAL)** A message envelope as recited in claim 55, wherein
15 the data structures are expressed in a markup language.

16
17 **57. (ORIGINAL)** A message envelope as recited in claim 55, wherein
18 the data structures are expressed in XML.

19
20 **58. (CURRENTLY AMENDED)** A modulated data signal having
21 computer-executable instructions embodied thereon comprising:

22 a header data structure which identifies an intermediate entity, over a
23 network of entities, as that which is intended to process the header data structure
24 and whether that intermediate entity must understand such data structure; and
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1 a body data structure which identifies the destination entity as that which is
2 intended to process the body data structure.

3
4 **59. (ORIGINAL)** A modulated data signal as recited in claim 58,
5 wherein the data structures are expressed in a markup language.

6
7 **60. (ORIGINAL)** A modulated data signal as recited in claim 58,
8 wherein the data structures are expressed in XML.

9
10 **61. (CURRENTLY AMENDED)** A computer-readable medium having a
11 data structure embodied thereon comprising:

12 a header data-structure section which identifies an intermediate entity, over
13 a network of entities, as that which is intended to process the header data-structure
14 section and whether that intermediate entity must understand such data-structure
15 section; and

16 a body data-structure section which identifies the destination entity as that
17 which is intended to process the body data-structure section.

18
19 **62. (ORIGINAL)** A computer-readable medium as recited in claim 61,
20 wherein the data-structure sections are expressed in a markup language.

21
22 **63. (ORIGINAL)** A computer-readable medium as recited in claim 61,
23 wherein the data-structure sections are expressed in XML.
24
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1 **64. (NEW)** A method of formatting a message for exchange
2 between entities on a network, the method comprising:

3 generating a message envelope of a message, the message comprising at
4 least one request by one entity on a network of another entity on the network to
5 perform a task;

6 generating contents of the message envelope, the contents comprising data
7 structures, each data structure identifies which entity is intended to process the
8 data structure when that entity receives the message envelope over the network.

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11 **65. (NEW)** A method as recited in claim 64, wherein each data
12 structure specifies whether the entity that is intended to process the data structure
13 must understand such data structure.

14
15 **66. (NEW)** A method as recited in claim 64, wherein each data
16 structure specifies whether the entity that is intended to process the data structure
17 must respond if it does not understand such data structure.

18
19 **67. (NEW)** A method as recited in claim 64, wherein:
20 the message envelope has beginning and ending envelope tags;
21 the contents of the message envelope is between the envelope tags.
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1 68. (NEW) A method as recited in claim 64, wherein the contents
2 include:

3 a header data structure;

4 a body data structure, the body data structure including message data.

5
6 69. (NEW) A method as recited in claim 68, wherein:
7 the header data structure has beginning and ending header tags;
8 the body data structure has beginning and ending body tags.

9
10 70. (NEW) A method as recited in claim 68, wherein:
11 the header data structure is intended for at least one intermediate entity;
12 the body data structure is intended for a destination entity.

13
14 71. (NEW) A method as recited in claim 64 further comprising
15 sending the message envelope to an entity on a network.

16
17 72. (NEW) A method as recited in claim 64, wherein at least one
18 of the data structures includes a request for an entity to perform a task, wherein the
19 data structures lack executable instructions for performing the task.

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1 73. (NEW) A method as recited in claim 64, wherein the data
2 structures are expressed in a markup language.

3
4 74. (NEW) A method as recited in claim 64, wherein the data
5 structures are expressed in XML.

6
7 75. (NEW) A method as recited in claim 64 further comprising:
8 formatting the message envelope for sending over a network using HTTP;
9 sending the message envelope to an entity on the network by using HTTP.

10
11 76. (NEW) A method as recited in claim 64 further comprising:
12 binding the message envelope into a HTTP request;
13 sending the message envelope to an entity on the network by using HTTP.

14
15 77. (NEW) A method as recited in claim 64 further comprising:
16 binding the message envelope into a HTTP response;
17 sending the message envelope to an entity on the network by using HTTP.

18
19 78. (NEW) A method as recited in claim 69, wherein the header
20 tags identify the header data structure.

21
22 79. (NEW) A method as recited in claim 69, wherein the body tags
23 identify the body data structure.
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